

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 11094676  
PUBLICATION DATE : 09-04-99

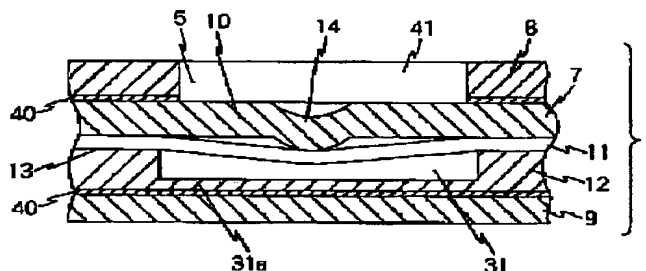
APPLICATION DATE : 17-09-97  
APPLICATION NUMBER : 09251715

APPLICANT : HITACHI LTD;

INVENTOR : KAWAKAMI KAZUHIKO;

INT.CL. : G01L 23/22 F02D 45/00 G01L 23/06  
G01L 23/08

TITLE : IN-CYLINDER PRESSURE SENSOR



**ABSTRACT :** PROBLEM TO BE SOLVED: To make stably and accurately detectable in-cylinder pressure over a long period, by enhancing the sealing performance of an in-cylinder pressure sensor of a type integrated with a gasket, and reducing the rate of decrease in durability.

**SOLUTION:** A gasket 1 is mounted between the cylinder head and cylinder block of an engine. The in-cylinder pressure sensor 5 in the gasket 1 includes a diaphragm 10 responding to the introduced in-cylinder pressure of a cylinder bore 2 and a means for converting the displacement of the diaphragm 10 into an amount of electricity or light serving as pressure information for output to the outside of the gasket 1. The gasket 1 is formed by a stack of an upper plate 8, intermediate plates 7, 12, and a lower plate 9. The intermediate plate 7 has the diaphragm 10, and the intermediate plate 12 has a recessed reference pressure chamber 31, the diaphragm 10 being joined with the recessed reference pressure chamber 31. A junction line is set along a line such that the cylinder bore can be shut off from the reference pressure chamber 31.

COPYRIGHT: (C)1999,JPO